

**ABSTRACT**

A device for removing toxins from the blood of patients suffering from acute liver failure, acute-on-chronic liver failure and sepsis is provided. The toxin removal device disclosed herein comprises activated charcoal and at least one non-ionic resin for use in an extracorporeal circuit that minimizes electrolyte and protein depletion from the treated plasma. Also provided are associated methods for treating patients suffering from acute liver failure, acute-on-chronic liver failure and sepsis using the disclosed toxin removal device.